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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,579	01/08/2002	Karen E. Kimball	07275-0030-01	4750

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EXAMINER
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HSU, ALPUS

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 08/03/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/038,579

**Applicant(s)**

KIMBALL ET AL.

**Examiner**

Alpus H. Hsu

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. Claims 1-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claimed subject matters of an automatic load-balancing method and apparatus as in claims 1-68 were not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. To be more specific, according to page 11, line 17 to page 12, line 2, only three major components: a decision-making process, an intelligent load-balancing port-distribution algorithm and an undo prior load-balancing feature were disclosed. There is no physical implementation being disclosed for forming the claimed apparatus comprising the claimed elements or performing the claimed steps. Therefore, claims 1-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

2. Claims 21-34 are rejected as vague and indefinite since each claim recites only a single means (i.e. "an intelligent port-distribution mechanism") and thus encompasses all possible means for performing a desired function. See *Ex parte Bullock*, 1907 C.D. 93; 127 O.G. 1580.

3. Claims 1-20, 35-77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear as to how the intelligent port-distribution mechanism and detector are interacting to each other for forming the apparatus. Furthermore, it is unclear as to what is intended to be the claim limitation by reciting "intelligent automatic determination of

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when a given load-balancing activation currently would not be beneficial”. In other words, it is unclear as to under what range or circumstance is considered to be beneficial or not for the load-balancing process.

Regarding claim 9, it is unclear as to how the intelligent port-distribution mechanism and undo mechanism are interacting to each other for forming the apparatus.

Regarding claim 35, it is unclear as to how the step of providing the intelligent port-distribution mechanism and step of determining are interacting to each other for forming the method. Furthermore, it is unclear as to what is intended to be the claim limitation by reciting “intelligent automatic determination of when a given load-balancing activation currently would not be beneficial”. In other words, it is unclear as to under what range or circumstance is considered to be beneficial or not for the load-balancing process.

Regarding claim 43, it is unclear as to how the step of providing the intelligent port-distribution mechanism and step of providing the undoing mechanism are interacting to each other for forming the method.

Regarding claim 55, it is unclear as to what function the intelligent port-distribution mechanism performs. Furthermore, it is also unclear as to which element is performing the step of moving ports to new segments to accomplish load-balancing.

Regarding claim 69, line 10, “said mechanism” lacks antecedent basis.

4. Claims 69-77 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.
5. The following is an examiner’s statement of reasons for allowance:

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Claims 69-77 are allowable over the prior art of record because all prior arts fails to teach or suggest an intelligent port-distribution method that moves ports to new segments to accomplish load-balancing in a segmented electronic network by collecting a snapshot of information about all network ports to be considered for redistribution, sorting the ports in descending order of network resource impact value, finding the next candidate port which is next port among the sorted ports that has not already been assigned, sorting segments in ascending order of current total of network resource impact of all ports placed on them, finding the first segment with a least current network resource impact total that is qualified as the target segment for a candidate port, checking if the candidate port was previously on the target segment an if so, assigning the candidate port back to the same segment, and processing any further ports.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Latif et al., Vepa et al. and Bereiter are cited to show the common feature of load balancing in data communication network utilizing port distribution mechanism similar to the claimed invention.

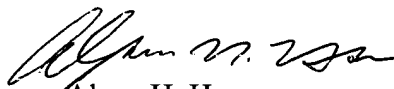
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (703)305-4377. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (703)308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH

  
Alpus H. Hsu  
Primary Examiner  
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